

# **COMPUTER AIDED DESIGN METHOD AND APPARATUS FOR MODELING AND ANALYZING ON-CHIP INTERCONNECT STRUCTURES**

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## **ABSTRACT OF THE INVENTION**

[0031] A computer aided design (CAD) system. A template generation engine generates templates from interconnect configuration files. A field solver generates high frequency passive element relationships from the templates. A circuit builder generates circuit description files from device technology models and from high frequency passive element relationships. Parameterized circuit description models may be generated for large range of sensitivity analyses. A simulator simulates circuit responses for transmission line models from the circuit description files. Interconnect configuration files may be generated by a geometry and material definition module that receives process description data from a designer.

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